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# 60-PR. B.L. GUN.

## SECTION GUN DRILL.

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## SECTION GUN DRILL FOR 60-PR. B.L. GUN.

### ARRANGEMENT.

#### The Detachment—

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- Detachment rear.
- To move the gun with drag ropes.

#### Preparation for Action.

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To Shift the Gun from Firing to Travelling Position.

##### Aiming Posts.

##### Change of Target.

To Ascertain the Lowest Range at which the Trajectory will Clear the Crest.

To Ascertain whether the Trajectory will Clear the Crest the Angle of Sight and Range being known.

To Replace a Damaged Wheel.

To Remove Running-out Press. ✓

### SECTION GUN DRILL.

Battery gun drill which does not vary with the equipment is given in "Field Artillery Training."

Single detachments should be accustomed to drill as if forming a part of a section, and the instructor should, therefore, always use the orders given for the section commander.

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### THE DETACHMENT.

The detachment consists of ten men who fall in two deep, one pace between ranks, 1 on the right of the front rank.

#### To Tell Off.

Section Commander.

.....Section, tell off.

*At the order from the section commander—*

1 numbers 1, the right-hand man of the rear rank 2, his front rank man 3, and so on.

#### Detachment Rear.

Formed as above, one yard in rear of the muzzle, 1 covering the off wheel.

#### To Move the Gun with Drag Ropes.

Section Commander.

.....Section with drag ropes,  
prepare to advance.

*At the order from the section commander—*

2 and 3 supply themselves with the drag ropes and hook them to the drag washers on their own sides. The two highest numbers go to the point of the pole. The remainder man the ropes, even numbers on the rear side odd numbers on the off.

At the order "*Halt*" the carriages are halted and the detachments remain at their posts.

At the order "*Detachments Rear*" the detachment double to their places by the shortest way and halt.

### PREPARATION FOR ACTION.

Section Commander.

No. 1.

.....Section, prepare for action.

*At the order from the section commander—*

1 sees that the bore is clear, superintends the other men, and satisfies himself that the gun and carriage are in all respects ready for action.

2 removes the breech and muzzle covers and secures them on the limber, and assisted by 3, releases the holding-down strap. He then examines the breech fittings and brake, fills the tube pocket, straps it round his waist, and sees that the lanyards are ready for use.

3 removes the buffer and sight bracket cover, and secures it on

the limber; assists 2 with holding-down strap; fixes the sights as ordered, and examines the sights and brake.

4 depresses the gun to enable 2 to open the breech, examines elevating and traversing gear, sets traversing gear at zero, sees that the rammer and handspikes are in their places.

After the breech fittings and bore are examined, the breech is closed, and the holding-down strap replaced.

5 and 6 examine the limber.

7, 8, 9 and 10 examine the wagons and see that the ammunition is ready for use. Breech and muzzle covers may be replaced if necessary.

Each man resumes his place as soon as he has completed his duties.

### DUTIES.

1, before leaving the gun park, will ascertain that the buffer is properly filled. He will be careful to note if the gland of the buffer is leaking; if the gland leaks a serious accident may occur to the equipment during firing owing to the loss of fluid from the buffer.

He commands, and when time fuzes are used, will see that they are set correctly.

When shifting the gun from travelling to firing position, or *vice versa*, he will see that the traversing gear is set at zero, and that the gun does not foul the supporting plate.

He is responsible for the entire service of the gun.

He only gives the word of command shown for him; his executive orders should be no louder than is necessary for his sub-section to hear.

He will acknowledge all orders by saluting.

2 attends to the breech, and assists in shifting the gun; makes ready and fires.

He opens and closes the breech as follows:

*To open the breech.*—

He takes hold of the lever with his left hand (pressing the spring with his fingers) and draws it towards him as far as it will go.

*To close the breech.*—

He takes hold of the lever with his left hand, and swings the breech screw smartly round into its position in the gun.

He attends to the brake on the near side when travelling.

3 lays, directing 4 to elevate or traverse, if necessary, by giving "Elevate—Halt," "Trail right—Halt," &c., and assists in shifting the gun.

When laying direct he should level the sight-clinometer as soon as possible.

He attends to the brake on the off side when travelling.

4 assists in shifting the gun, elevates and traverses if necessary, uncaps the fuze, removes the safety pin or pins, loads and rams home, secures the laying step in the travelling position and adjusts them for use when in action.

He attends to aiming posts if in use.

5 assists in shifting the gun. He, alternately with 7, supplies 4 with projectiles and rammer.

6 and 7 attend to the coupling piece when limbering up or unlimbering, and assists in shifting the gun.

7 should always replace the connecting pin in the coupling block before the limber moves off.

6 supplies cartridges.

7, alternately with 5, supplies 4 with projectiles and rammer.

8 issues cartridges to 6.

9 and 10 fix percussion fuzes, fix and set time fuzes when used, and issue projectiles to 5 and 7.

**NOTE.**—The battery commander will decide, according to circumstances:—

*Where and when the gun should be shifted from the travelling to the firing position. This should usually be done in the "Preliminary position."*

## TO SHIFT THE GUN FROM TRAVELLING TO FIRING POSITION.

Section Commander.	No. 1.
.....Section, shift the gun to the firing position.	No.....Prepare to shift the gun. Heave. Halt.

*At the order from 1, "Prepare to shift the gun"—*

2, 3, 4 and 5 remove the handspikes and release the holding-down strap, 4 depressing the gun to clear the gun rest.

The housing stops must be lowered.

4 and 5 hook a drag rope each to the carriage body, the detachment man the ropes.

Extra men are required to man the ropes. If no extra men are available, tackles may be used.

*At the order from 1, "Heave"—*

The gun is moved to the firing position.

*At the order from 1, "Halt"—*

2 and 3 fix and secure the locking bolts. 4 and 5 remove the drag ropes. Handspikes are replaced on the carriage when necessary.

When the gun has been shifted to the firing position, 6 and 7 place a shell in the shell bracket in rear of each limber box, and a cartridge inside, this ammunition will not be used except in cases of emergency.

The shells are placed in the shell brackets to balance the limber when the gun is in the firing position, and thus remove the excessive weight off the pole.

## ACTION.

## No. 1.

No.....*Prepare to unlimber.*  
*Limber drive on.*  
*Lower.*  
 No.....*Action.*

When it is desired that the limbers should be sent off the position—

*At the order from 1, "Prepare to unlimber"—*

2 and 3 place their handspikes in the sockets on the trail, 4 and 5 double man them, 6 and 7 stand to support the coupling block, 7 removes the connecting pin, 1 gives "*Limber, drive on.*" The limber moves as directed in "*Field Artillery Training.*" As soon as the trail is clear 1 gives "*Lower,*" and the trail and coupling block are lowered gently, 7 replaces the connecting pin in the coupling block before the limber moves off. Limbers will move at a walk except when under fire, or the tactical situation necessitates their moving at a greater speed.

When it is desired that the limbers should remain on the position:—

*At the order from 1, "Prepare to unlimber"—*

8, 9 and 10 unhook the team and man the limber, 10 at the point of the pole, 8 and 9 at the wheels, 2 and 3 place their handspikes in the sockets on trail, 4 and 5 double man them. As soon as the team is unhooked, 6 and 7 stand to support the coupling block, 7 removes the connecting pin, 1 gives "*Limber, drive on.*" The team moves as detailed in "*Field Artillery Training.*" The limber will be placed in a convenient position near the gun. As soon as the trail is clear, 1 gives "*Lower,*" and the trail and coupling block are lowered gently, 7 replacing the connecting pin in the coupling block.

*At the order from 1, "Action"—*

2, 3, 4 and 5 lay down their handspikes, point to the front and bevel up, one yard clear, 2 and 3 in line with the wheels, 4 and 5 in line with the trail handles.

2 removes the gun rest, opens the breech, places a tube in the vent, and supplies himself with the lanyard.

3 levels the sight and sets it as ordered, and as soon as the gun is layed reports "*Ready.*"

4 brings the gun to a convenient position for loading, fixes front and rear laying steps, and places the rammer in position ready for use.

6 and 7 coil up the drag ropes, and place them on the ground outside the handspikes.

When the gun is in action on a slope, in order to check the lateral movement of the carriage and to reduce the risk of overturning,

No. 1 will direct the layer to adjust the traversing gear so that the breech is one or two degrees on the side of the higher wheel.  
8, 9 and 10 prepare to issue ammunition.

**The position of the detachment is as follows:—**

- 1 where he can best superintend the working of the detachment.
  - 2 close to the breech on the right side.
  - 3 close to the breech on the left side.
  - 4 in rear of 3.
  - 5 and 7 at the wagon ready to supply projectiles.
  - 6 at the wagon ready to supply cartridges.
  - 8 at the wagon ready to issue cartridges.
  - 9 and 10 at the wagon ready to issue projectiles.
- Action right or left—the trail is carried round a quarter of a circle.

When on a "side" slope—action rear only should be resorted to

### TO LOAD.

At drill, rounds will not be loaded, but service shell will be placed in succession as they are used, by 5 and 7, on the right side of the gun, after they have gone through the motion of loading. The rammer will be placed against the breech bush in the action of ramming home.

	No. 1.
No.....	{ Lyddite
	or
	{ Percussion
	or
	Fuze.....Load.

*At the order from 1—*

9 assisted by 10 fixes percussion fuzes and fixes and sets time fuze, clamping them as tight as possible.\* 5 and 7 alternately bring up the shell, point to the right, on the left of the trail and hands it to 4, supplies 4 with the rammer and replaces it. 4 stands on the loading platform, left side to the breech, turns to his right and receives the shell point to the left, and places it just inside the bore and rams it hard home.

1 uncaps the fuze, or if time fuzes are used, sees that they are correctly set and removes the safety pin.

8 supplies 6 with a cartridge.

6 brings up a cartridge and hands it to 4, 4 places the cartridge in the bore and steps clear.

2 closes the breech.

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\* Time fuzes should be securely clamped to reduce the chances of prematures caused by the slipping of the time ring.



**TO LAY.**

3 stands on the laying step, levels the sight and sets it at the elevation and deflection ordered; if necessary, he directs 4 to elevate and traverse. As soon as the gun is layed (if loaded) he reports "*Ready*," 4 elevates and traverses as directed by 3.

When laying direct 3 should always level the sight clinometer as soon as possible.

If it is necessary to move the trail to get the gun approximately in line before laying the first round, a drag rope is hooked to the trail handles and manned by the whole detachment; 1 stands in rear of the trail to enable him to see when the gun is moved sufficiently.

**TO FIRE.**

A gun is not to be fired without the order from 1, who must never give this order until he sees that the gun is in all respects ready.

No. 1.

No.....*Fire*.

As soon as the gun is reported "*Ready*"—

1 gives the number of his gun as a caution.

2 hooks the lanyard to the tube, steps clear of the wheel, holding the lanyard in his right hand.

3 and 4 step clear.

As soon as he sees 2 ready, and the other men clear, 1 gives "*Fire*."

2 fires the gun by jerking the lanyard smartly.

As soon as the gun is fired—

4 brings the gun to a convenient position for loading.

2 opens the breech and places a fresh tube in the vent.

3 relays for direction.

**GUN FIRE.**

No. 1.

No....*Fire*....*Load*.

As soon as the gun is reported "*Ready*"—

1 gives the order to fire, and continues to reload and fire until the specified number of rounds have been fired.

**MISSFIRE.**

If there is a missfire, after an interval of ten seconds the old tube is extracted by lowering the block retaining tube, a new tube is inserted and the gun is fired when ordered.

Should missfires continue, and it be necessary to open the breech, an interval of three minutes must be allowed to elapse after the

last missfire before the breech is opened. Wait a further one minute before removing the cartridge. The igniter will then be examined and—

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514 (i.) If it is smouldering the cartridge will be drowned.  
(ii.) If the igniter is dry and serviceable, the cartridge will be used again.

When, however, the cartridge cannot be fired the same day or night at the practice in progress, it must be destroyed.

- (iii.) If the igniter appears to be wet (or damp) the cartridge must be destroyed.

NOTE.—Instructions for the destruction of cordite are contained in the Regulations for Army Ordnance Services, Part II.

<sup>40</sup>  
W.O.  
1921 The precautions to be taken when firing blank ammunition are detailed in Appendix I, Field Artillery Training (as amended by Army Order 208 of 1913).<sup>2</sup>

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1854 No gun is to be re-loaded within 30 seconds after firing (blank) nor until No. 1 has examined the bore.

### TO STAND FAST.

Section Commander.		No. 1.
.....Section, stand fast.		

At the order from the section commander—

All stand fast whatever they are doing. If the lanyard is attached to the tube, 2 unhooks it. At the order "Go on," the work is continued.

### CEASE FIRING.

Section Commander.

.....Section, cease firing.

At the order from the section commander—

2 closes the breech, replaces the tube pocket, lanyard and gun rest.

3 sets his sight at zero and hands dial sight, telescope and telescope carrier, if in use, to 6, who replaces them in the limber.

4 sets traversing gear at zero and elevates the gun, secures the laying steps in the travelling position and brings in aiming posts if in use.

The men at the wagons replace unexpended ammunition.

In cases where a safety pin has been taken out before the order "Cease firing" is given, the loading will be completed and the gun fired as if it had been loaded when the order was given.

### TO LIMBER UP.

Section Commander.	No. 1.
.....Section, rear limber up.	No.....Lift.

*At the order from the section commander—*

The men stand to the trail as for unlimbering. The limber is brought up and when in position 1 gives "*Lift*," the trail eye is placed in the coupling block and 7 replaces the pin.

### TO SHIFT THE GUN FROM FIRING TO TRAVELLING POSITION.

Section Commander.	No. 1.
.....Section, shift the gun to travelling position.	No.....Prepare to shift the gun. Heave. Halt.

*At the order from 1, "Prepare to shift the gun"—*

2 and 3 remove the locking bolts.

4 and 5 hook a drag rope each to the carriage body, the detachment man the ropes.

Extra men are required to man the ropes. If no extra men are available, tackles may be used.

*At the order from 1, "Heave"—*

The gun is moved to the travelling position.

*At the order from 1, "Halt"—*

2, 3, 4 and 5 replace and secure the locking bolts, drag ropes, handspikes and rammer, and raise the housing stops.

1 must see that the gun will not foul the gun rest.

The gun is elevated till breech ring rests on the supporting plate, when 2 and 3 replace holding-down strap and screw up coupling screws.

The team is hooked in after the gun is limbered up.

### AIMING POSTS.

#### Laying by Means of Aiming Posts.

On the order "*Lines of Fire*" 4 doubles out about 50 yards in front of the gun with his two aiming posts, and plants them as directed by 3, in line with the rocking bar sight. In planting the aiming posts the one nearer the gun will be planted first. When lines of fire are given to individual guns from a director in front of the battery, 4 will kneel down, and, as soon as he has received the angle for his gun, will stand up, salute, and pass on the order to 3.

### CHANGE OF TARGET.

The dial sight is immediately laid on an aiming point, or auxiliary aiming point, and the angle noted. The switch angle is added to or subtracted from this angle and the dial sight reset to the angle thus obtained. The dial sight is relaid on the aiming point by moving the trail and aiming posts planted (if required) in line with the dial sight set at zero. The traversing gear is set at zero for convenience.

#### To Ascertain the Lowest Range at which the Trajectory will Clear the Crest.

Lay gun on crest with tangent sight set to a liberal estimate of range to crest or obstacle. The resultant quadrant elevation is the lowest that will allow the trajectory to clear.

#### To Ascertain whether the Trajectory will Clear the Crest, the Angle of Sight and Range being Known.

Lay gun with quadrant elevation due to the angle of sight + range. Set tangent sight to a liberal estimate of the range to the crest or obstacle. If this line clears the crest the trajectory will do so.

### TO REPLACE A DAMAGED WHEEL.

Should a gun wheel be disabled in action, notice should be sent to the captain.

The latter will immediately send up another wheel, which will be brought alongside the damaged one, and the wheels changed as follows:—

Section Commander.	No. 1.
No.....Change wheels.	No.....Change wheels.
	Lift.
	Lower.

At the order 1, "Change wheels"—

3 removes the front laying step on the side of the damaged wheel, places a Clerk's lifting jack under the axletree on the side of the damaged wheel (the foot of the jack should be supported to prevent it sinking into the ground), and works the lever until the wheel is sufficiently clear and places himself in front of the damaged wheel.

4 and 5 place themselves in rear of the damaged wheel.

6 removes the dust cap, linch pin, adjusting collar and drag washer, and places them clear.

As soon as he sees that all is ready, 1 gives "Lift."

*At the order from 1—*

2, 3, 4 and 5 lift off the damaged wheel and run it clear.

The new wheel is put on by the men who brought it up, 6 replaces the drag washer, adjusting collar, linch pin and dust cap.

1 gives "Lower."

*At the order from 1—*

The wheel is lowered, the stores are replaced, and all resume their duties in action.

The damaged wheel is either left on the ground or removed by the men who brought up the new one, as the captain may have directed.

If the right wheel is damaged, before placing the jack, the loop for chain of roller scotch must be unscrewed.

#### TO REMOVE RUNNING-OUT PRESS. (Plate V.)

Section Commander.	No. 1.
No.....Remove running-out press.	No.....Prepare to remove running-out press. Lift. Lower.

*At the order from 1, "Prepare to remove running-out press"—*

4 depresses the gun to about 4 degrees.

2 and 3 remove the cap from the front of the outside spring case.

4 and 5 detach the running-out rod from the coupling link by removing the pin from the connecting lug. It may be necessary to unscrew the nut at the rear end of the coupling link to enable the pin to be removed from the connecting lug.

2, 3, 4 and 5 withdraw the press to the end of the first spring, 4 and 5 then secure a 6-ft. handspike by lashing across the springs, close to the front end of the outside spring case, and assisted by 6 and 7 man the handspike.

The press is then withdrawn to the end of the third spring.

2 and 3 secure a second 6-ft. handspike to the springs close to the front end of the outside spring case, this handspike is double manned by 8 and 9.

*At the order from 1, "Lift"—*

The men lifting at the handspikes completely withdraw the press and carry it clear.

*At the order from 1, "Lower"—*

The press is lowered to the ground, and the lashings and handspikes are removed.

# TO REPLACE RUNNING-OUT PRESS.

Section Commander.	No. 1.
No..... <i>Replace running-out press.</i>	No..... <i>Prepare to replace running-out press. Lift.</i>

This is exactly the opposite to removing running-out press just described, except that the gun should be elevated to about 2 degrees before removing the first handspike.

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